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**United States Patent** [19]**Index**[11] **Patent Number:** **6,072,669**[45] **Date of Patent:** **Jun. 6, 2000**[54] **THIN FILM MAGNETIC WRITE HEAD  
WITH PRECONDITIONING GAP**

57-179931	11/1982	Japan	360/121
3-178059	8/1991	Japan	360/121
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Olivette, Mo. 63132****OTHER PUBLICATIONS**

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**Primary Examiner**—William Klimowicz[21] **Appl. No.:** **08/822,778**[22] **Filed:** **Mar. 21, 1997**[51] **Int. Cl.<sup>7</sup>** ..... **G11B 5/265**[52] **U.S. Cl.** ..... **360/121; 360/123; 360/126**[58] **Field of Search** ..... **360/110, 119,  
360/120, 121, 122, 123, 125**[57] **ABSTRACT**

A thin film magnetic head includes an integrally formed preconditioning gap having a width greater than the write gap width to precondition a magnetic media for the more accurate placement of magnetic transitions on a magnetic medium. The thin film magnetic head is comprised of a first extended pole piece underlying a thin pancake helically wound magnetic coil with a second pole piece aligned with the first pole piece and attached to it through the center of the coil. A third pole piece, aligned with the first two pole pieces, overlies all of the foregoing and is attached to the first pole piece at its rearward end to thereby cover the other underlying layers of this thin film structure. The single magnetic coil surrounds the second pole piece and energizes both gaps.

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**24 Claims, 3 Drawing Sheets**